Automated Inspection, Repair, Corrosion, & Aircraft Tracking (AIRCAT)

OVERVIEW

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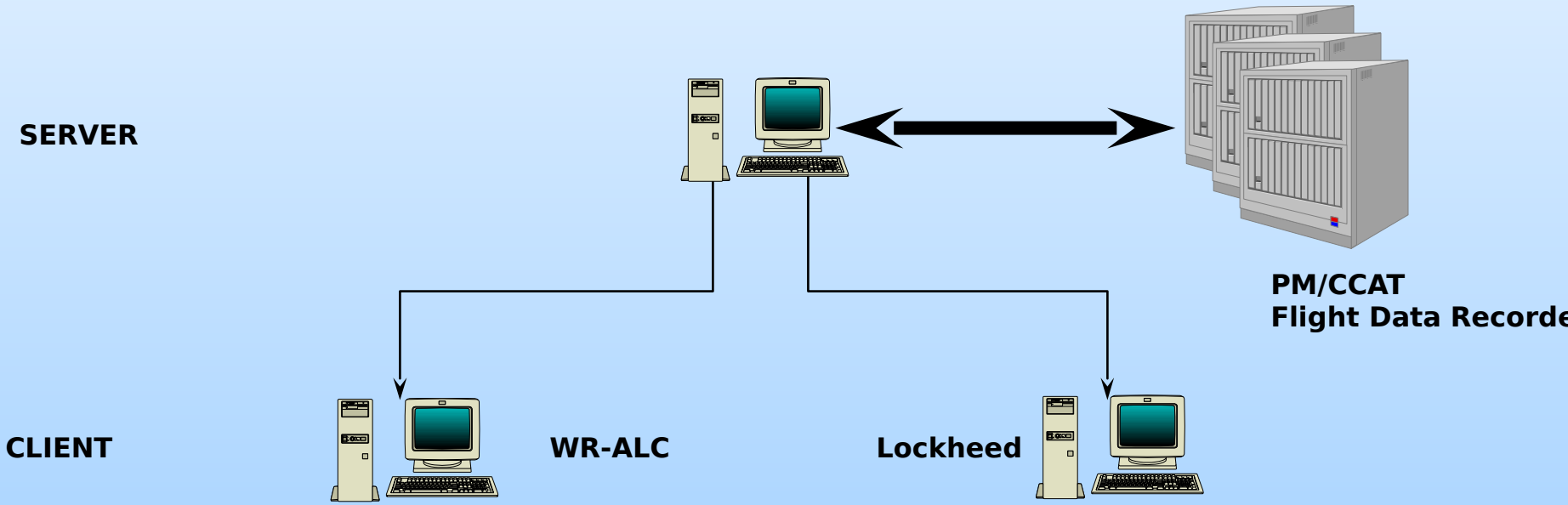
OVERVIEW

- AIRCAT Architecture
  - Hardware
  - Software
- AIRCAT Capabilities
  - Interactive Data Collection
  - On-Demand Fracture Growth
  - Graphic Output
  - On-Demand Reports
  - Aircraft Notes
  - Conversational Interface
  - Aircraft Configuration Management

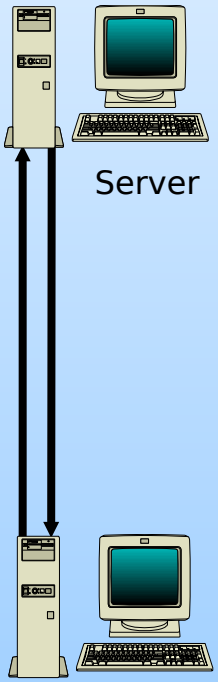
AIRCAT Architecture
(Hardware)

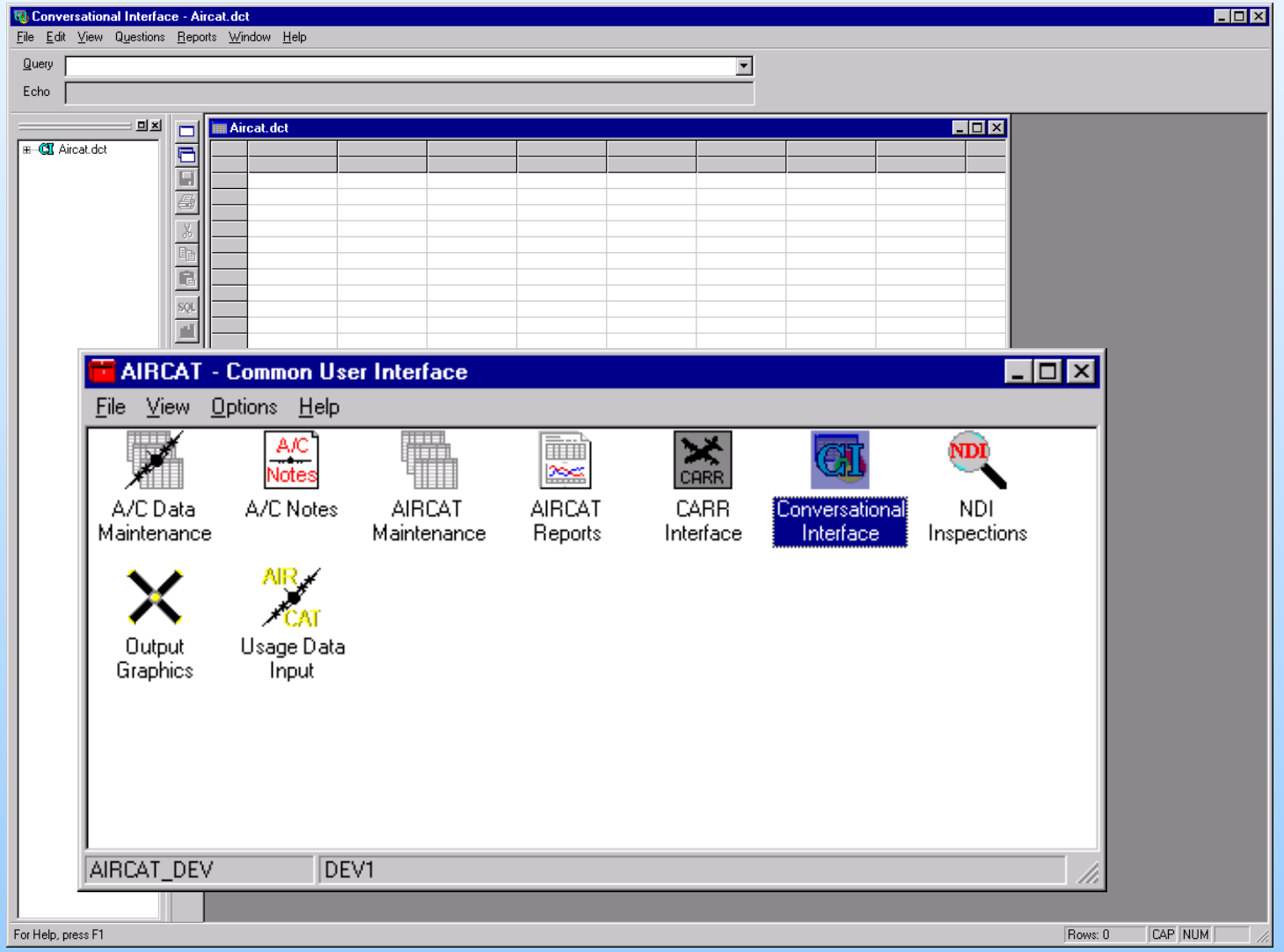


AIRCAT Architecture (Software)

AIRCAT WEB SITE

- Information
- Personnel
- Download





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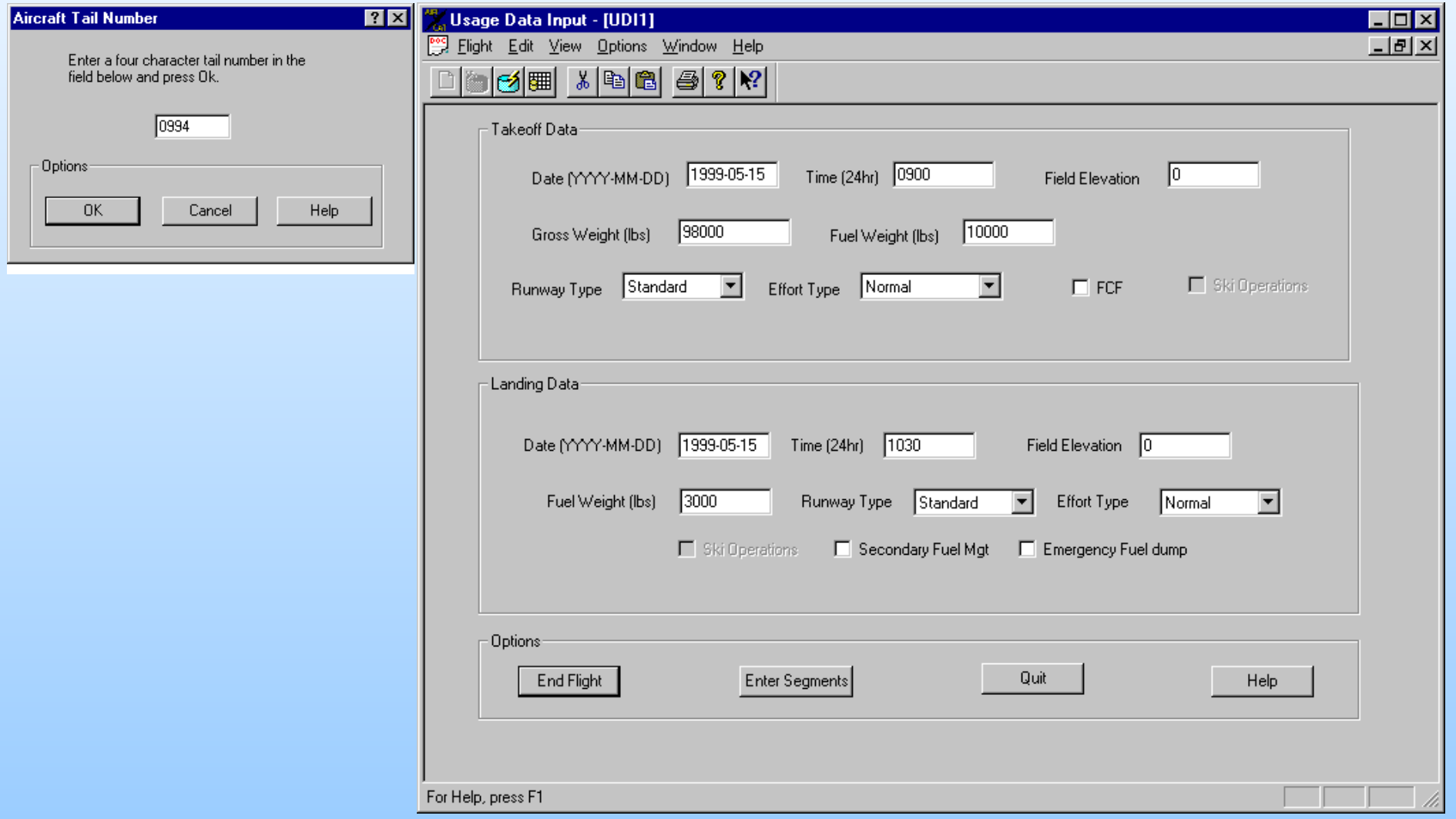
Interactive Data Input

- Interactive collection of Usage and Inspection data, using separate modules
- At the start of a session data required for validation is downloaded
- Validation of data is accomplished on entry
- Data is transmitted to database and verified with existing data

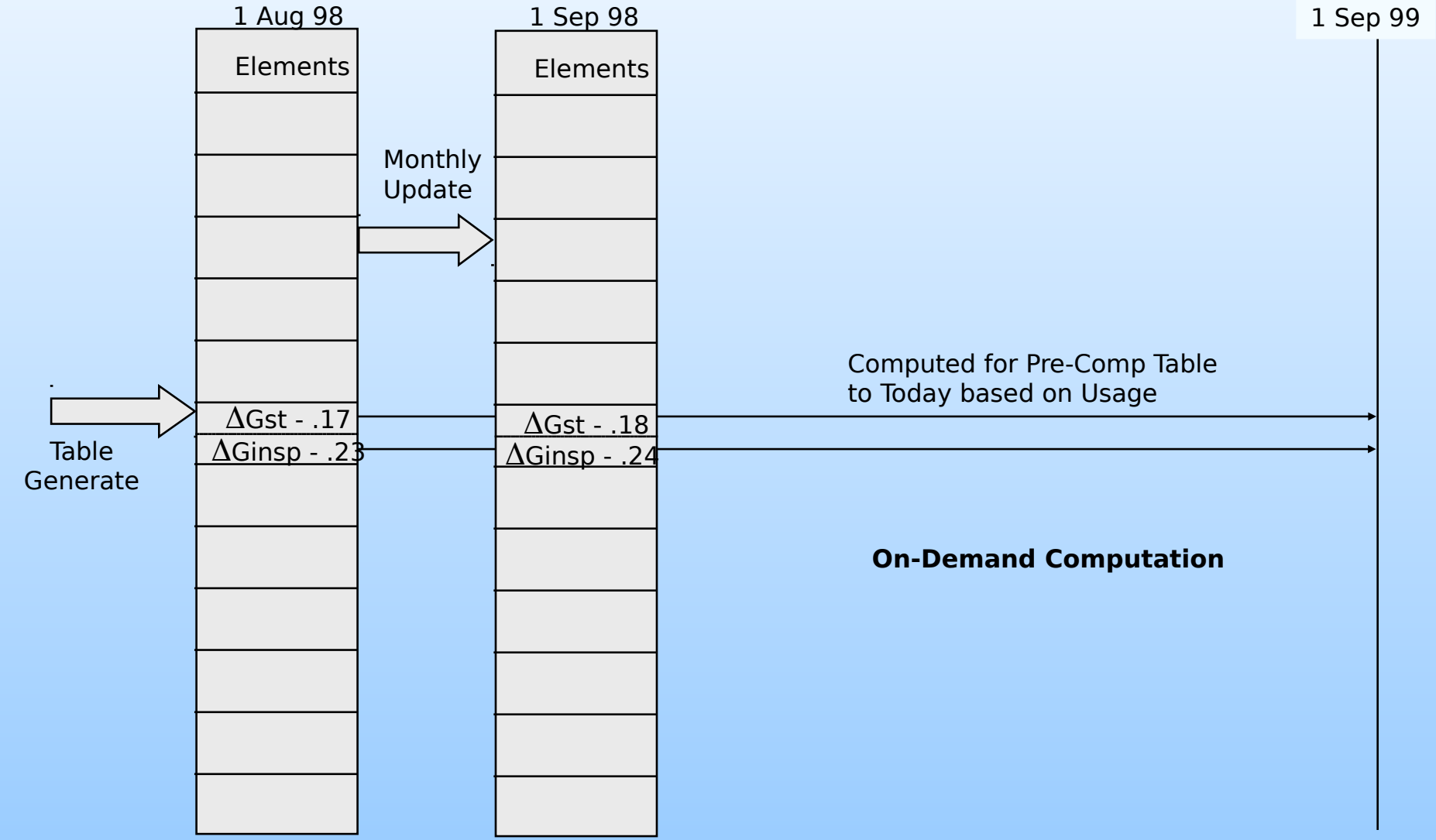
Usage Data Input



On-Demand Fracture Growth Tracking

- Computation based on growth in a normalized crack. Conceptually, a crack length is grown.
- Based on Usage Data and reset by Inspections cracks are grown for zones of an aircraft.

On-Demand Factor Growth
(Pre-computed Table)



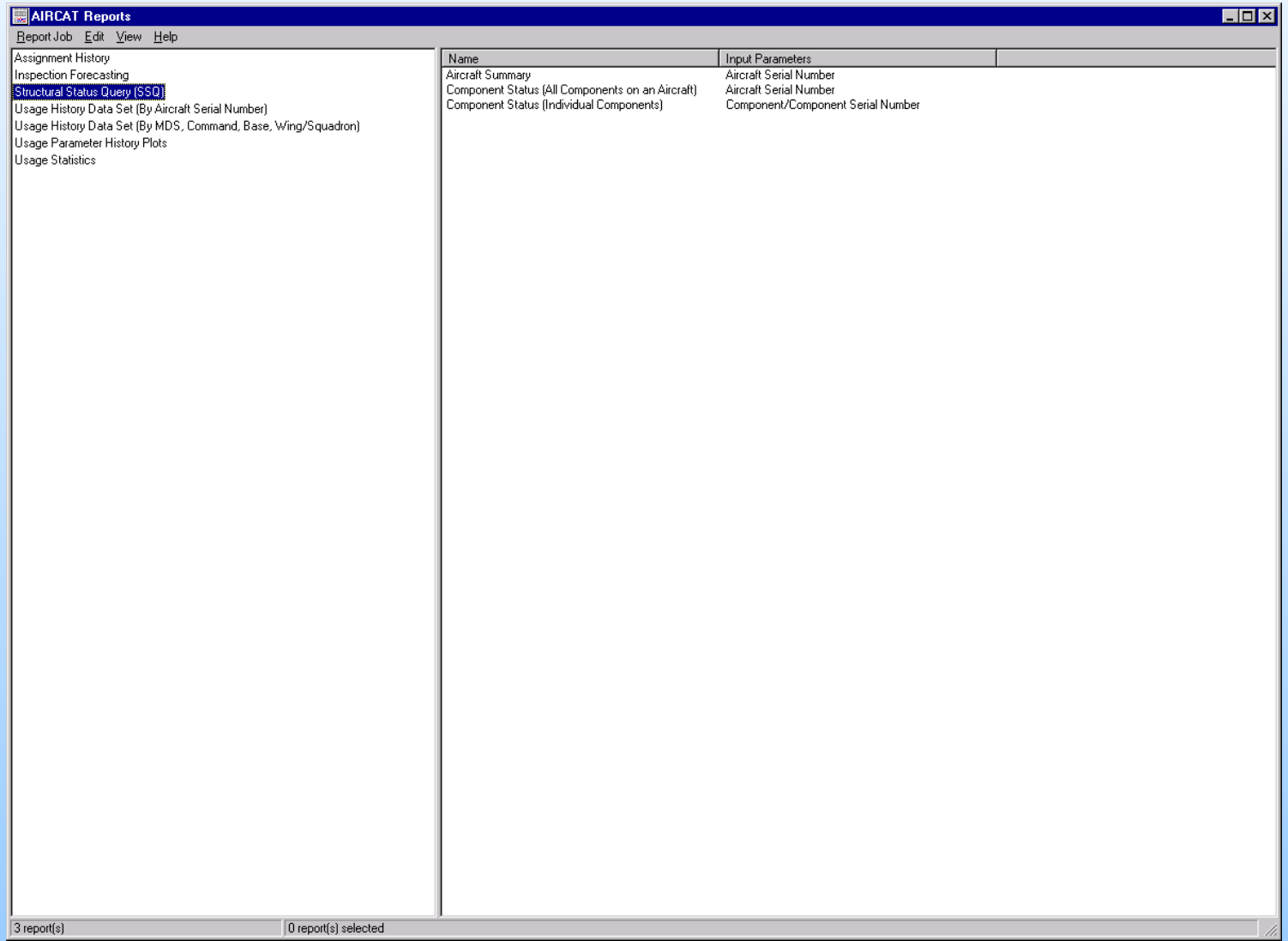
Graphics Output

- Output is be based on a line model of the C-130 aircraft
- The model is displayed with Corrosion Hits and Inspection data superimposed
- Operator has control features such as Zoom and perspective

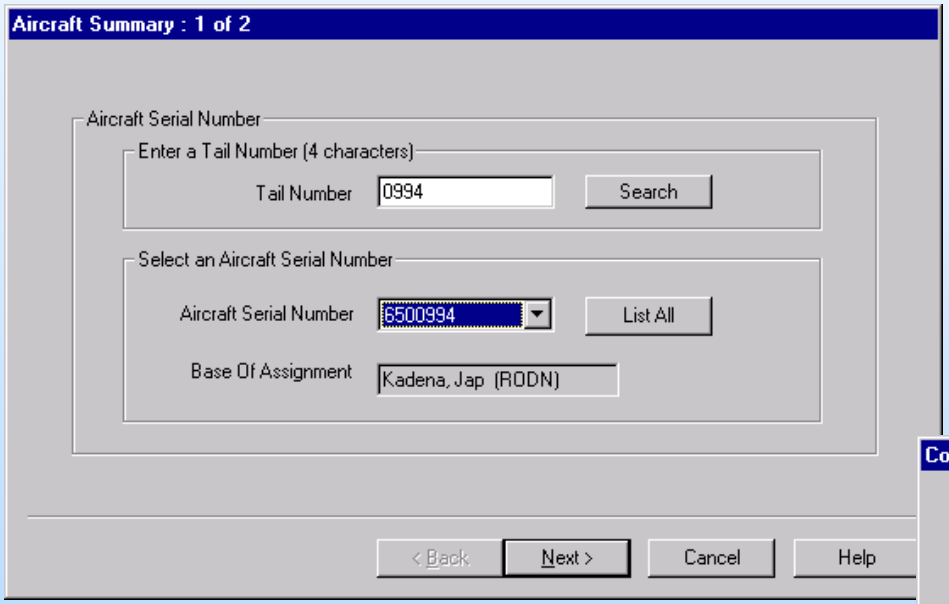
On-Demand Reports

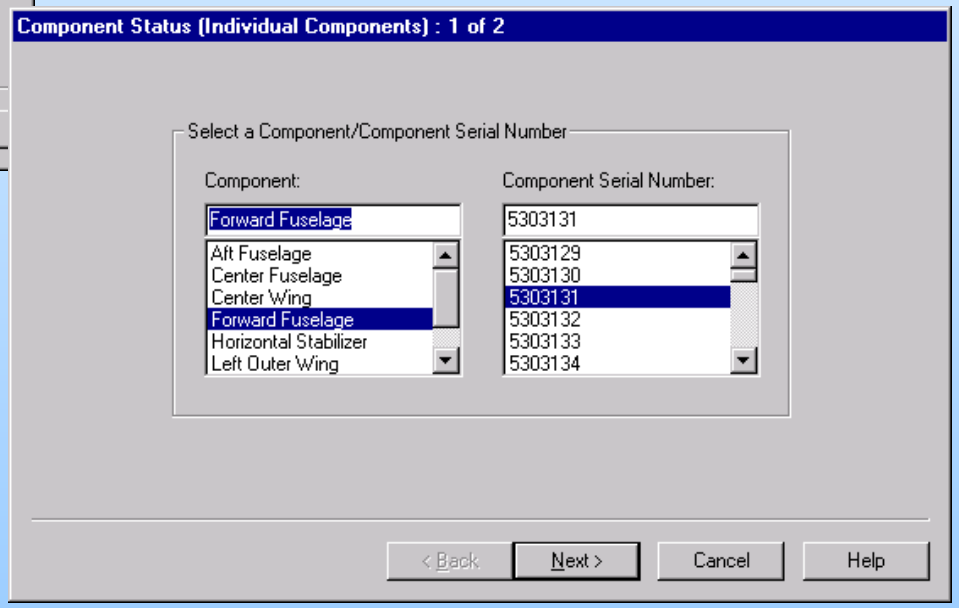
- Operator may select from a list of reports
- Operator may select a group of reports
  - Hotline Reports - all reports referencing a single aircraft
  - ASIP Reports - all reports required to produce ASIP Master Plan
- Reports will be prepared and E-Mailed to requestor

On-Demand Reports



On-Demand Reports

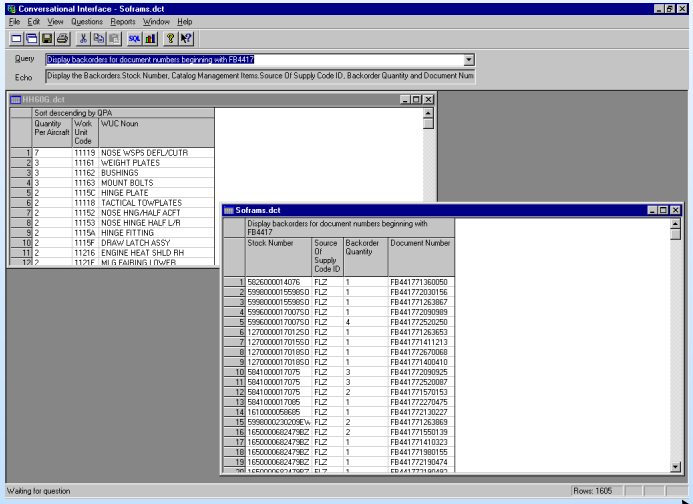


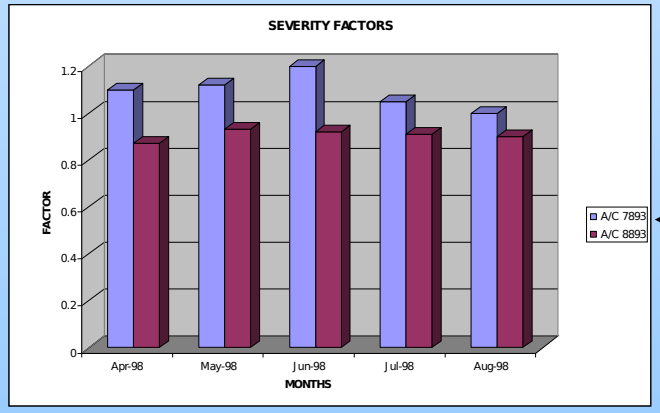


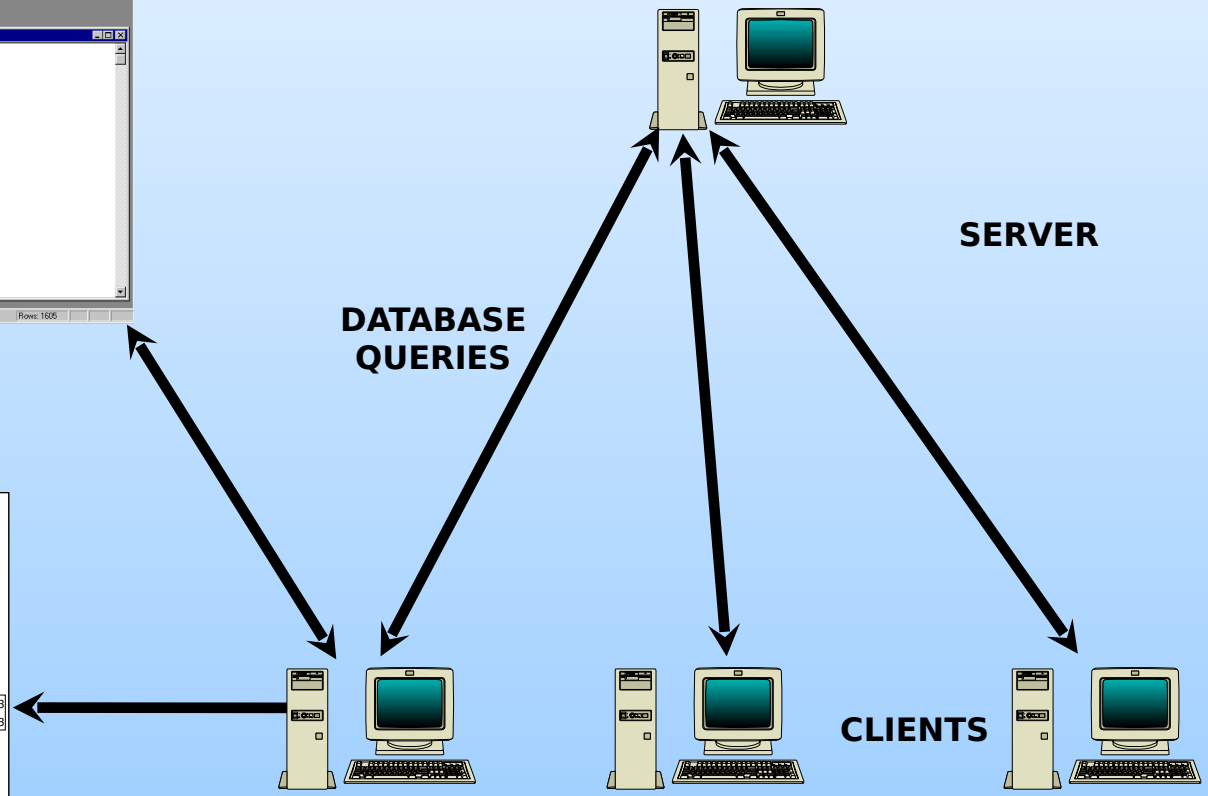
Aircraft Notes

- Users may create a note and reference it to an aircraft. The note may consist of:
  - Free text
  - Scanned drawings
  - Scanned pictures
- Notes are visible based on access control

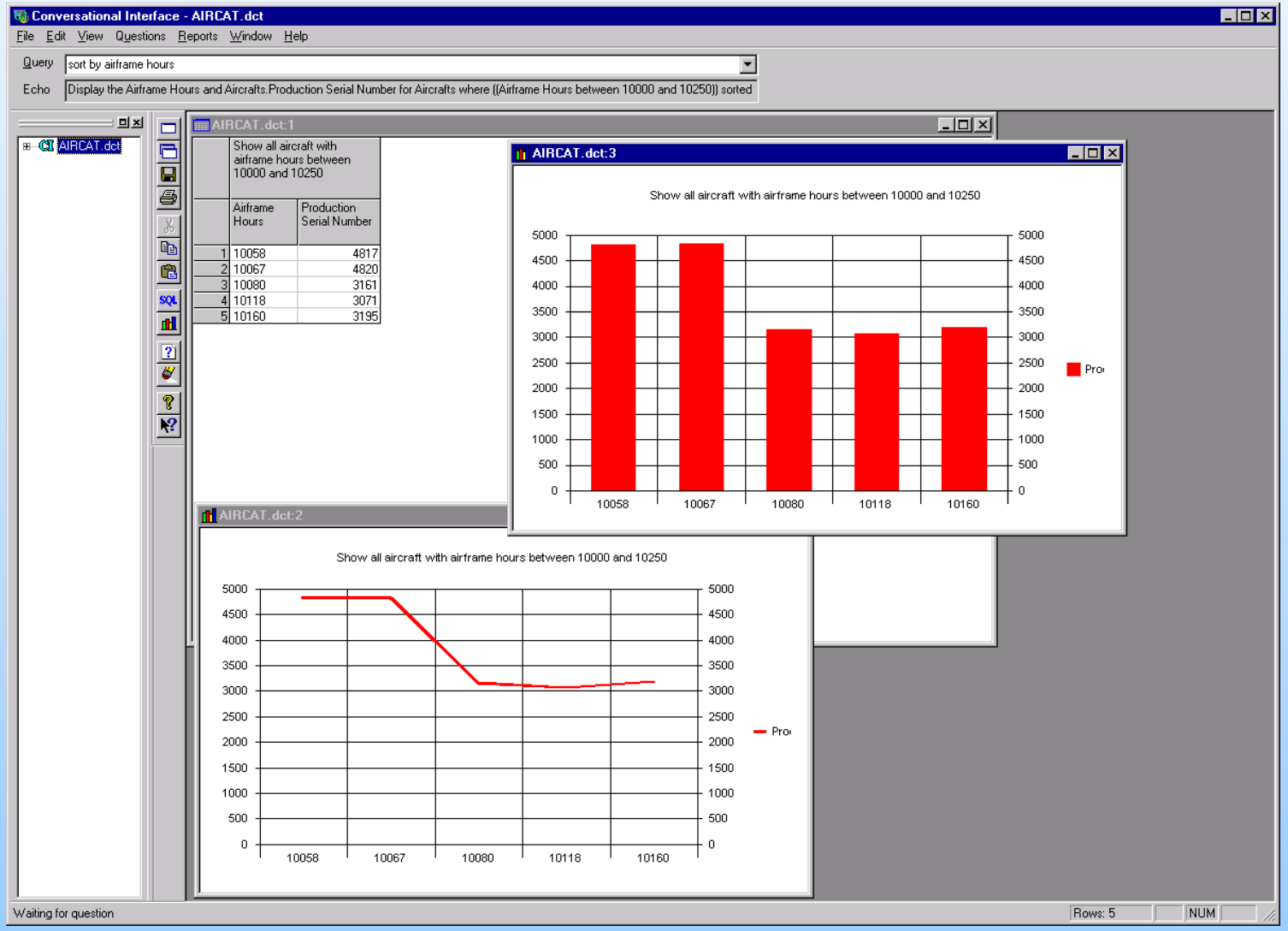
Conversational Interface


Conversational Interface - Soframs.dct
File Edit View Questions Reports Window Help
Query
Display backorders for document numbers beginning with FB4417
Echo
Display the Backorders Stock Number, Catalog Management Items Source Of Supply Code ID, Backorder Quantity and Document Num
Soframs.dct
Display backorders for document numbers beginning with FB4417
Stock Number
Source Of Supply Code ID
Backorder Quantity
Document Number
Waiting for question
Rows: 1605





Conversational Interface



Configuration Management

- Assignment Updates and History
- Component/Element Replacement
- Force Management

AIRCAT Program Office

- Customer: WR-ALC/LBRA
- Aircraft: C-130
- Program Start Date: Sep 96
- Planned Delivery: Sep 99
- AF Program Manager: Edward Pratt (912) 926-9602
- Development Contractor: Southwest Research Institute (912) 328-7974